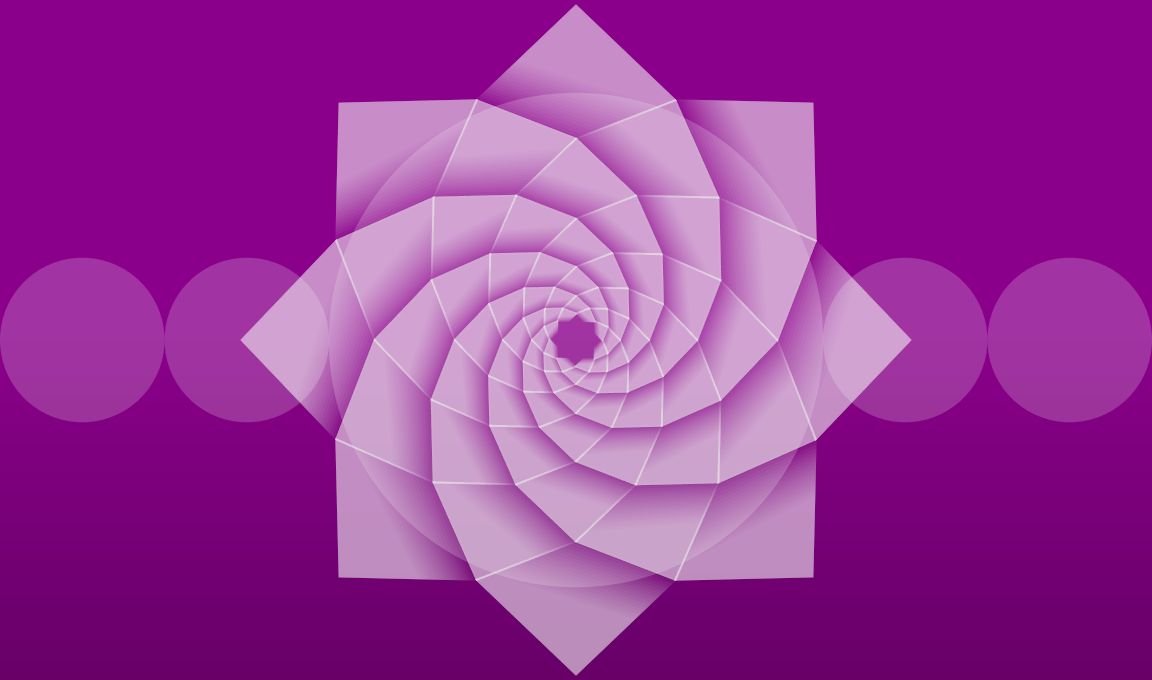


TIAN WU

THE
TERMINAL DIRECTIVE



TIAN WU

THE
TERMINAL DIRECTIVE



The Terminal[®] Directive

First edition, 2025

Copyright © 2025 Tian Wu

All content in this publication is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. You are permitted to share, copy, and redistribute the material in any medium or format, provided that proper credit is given to the original author, the content is not altered in any way, and the work is not used for commercial purposes. For full license terms, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

If you have any questions, please feel free to contact the author by **twuo261@gmail.com**.

ISBN 123-456-789-0

Published by Publisher

PREFACE

In the near future, a new cold-war has formed as tensions escalate between the two dominant global superpowers: the *Western Confederation*¹ and the *Oriental Alliance*². Both sides began to deploy weapons of mass destruction around the world, and also secretly in orbit.

The Western Confederation constructed an top-secret orbital missile launch platform – the **Solstice Space Station**, as a last resort for second strike and retaliation. In assurance of mutual destruction, the Oriental Alliance also built their own orbital strike platform – **Hyperborea**³.

- Station statistics:

- Orbit: **high-equatorial** / **far-polar**
- Altitude: **~ 20, 200 km** / **ammo-release at ~ 18, 600 km**
- Orbital Period: **12 hrs** / **varies**
- Payload: **72 “Damocles” red mercury warheads** / **364 “Xuanyuan” tungsten rods**

- Payload statistics:

- **“Damocles” red mercury warheads**: one of the deadliest weapons ever made by mankind, a new type of thermonuclear weapon using stibium mercuric oxide as neutron source. Unlike traditional nu-

¹A fictional nation in correspondence to countries of the “western campaign” in the real world.

²A fictional nation in correspondence to countries against the “western campaign” in the real world.

³Named after a mythical land from Greek mythology, located in the arctic region.

clear/thermonuclear weapons, red mercury warheads are capable of leaving wide-spread and long-lasting radiation pollution centering from the target regions. The red mercury warheads on Solstice combined is capable of polluting the entire eastern hemisphere and making these land uninhabitable for centuries. The codename “Damocles” refers to the famous ancient Greek anecdote commonly known as “the sword of Damocles”, which represents an allusion to the imminent and ever-present peril faced by those in positions of power.

- **“Xuanyuan” tungsten rods**: an upgraded version of the kinetic bombardment ammunition “Rods from God” first proposed by the U.S. Air Force in the early 1990’s and tested in 2003. These tungsten rods have global strike capability, each weighs 9 tons and can reach a terminal speed of Mach 15 upon impact. Hyperborea orbits the Earth in a far-polar orbit in order to charge the rods by the Earth’s magnetic field. The interior of these tungsten rods are designed to preserve these charges until releasing them when the rod reaches the stratosphere, ionizing the local lower-atmosphere and the Earth’s crust at target locations. The codename “Xuanyuan” originated from ancient Chinese history as the tribal leader and common ancestor of the Chinese people.

TABLE OF CONTENTS

<i>Preface</i>	iv
<i>Fate whispers to the warrior:</i>	i
<i>“A storm is coming.”</i>	7
<i>The warrior whispers back:</i>	20
<i>“I am the storm.”</i>	27

I

FATE WHISPERS TO THE WARRIOR:



*In the beginning was the Word,
and the Word was with God,
and the Word was God.
— <The Gospel of John>*

04:25 UTC, Solstice station.

- Crew batch: #19
- Crew number: 4
- Mission duration: Sol 57/182

Alarm sirens sounded all across the station, the crews rushed towards the command capsule in an instant. From an incoming transmission audio, a calm and somewhat robotic male voice read: “Control to Solstice, this is your President. Authorization code $\alpha 35\gamma\text{-}\epsilon 8\eta 096$, the following is your **TERMINAL DIRECTIVE**. Execute *Operation Leviathan*, select target option *Theta*, launch all warheads immediately.”

Liaison Rashford: “Voice print matched, command confirmed.”. Meanwhile, Commander Draper and Captain Emerson began to

unlock their safes containing the “nuclear biscuits”¹. It requires three steps of authentication to unlock the two nuclear biscuit safes:

1. the Commander’s/Captain’s passcode,
2. the Commander’s/Captain’s retina scan bio-signature,
3. the President’s nuclear launch authorization code.

Draper and Emerson completed the first two steps quickly, then they entered the authorization code provided by the audio. However, the safes did not open.

Computer: “Error code: drill complete, alarm cleared.”

It was just another drill, ground control arranges such drills all the time. The crews returned to their stations. It seemed like just another boring day on Solstice.

At 11:15 UTC, the crews were enjoying their lunch and watching the news feed from Earth as usual. Suddenly, the news feed cut off. The smart-screen read: “Signal lost.”. Emerson came up to slap the smart-screen, just like what everybody does when their TV malfunctions. But this time, slapping didn’t work.

“Rashford, check the comm system please.” Commander Draper said.

“It’s not us, all systems checked out.” Liaison Rashford replied.

Rashford rebooted the comm terminal, just as the old saying goes: “90% of computer issues can be fixed by rebooting the system.”. It worked, sort of at least. Suddenly, the alarm sirens sounded off again, in the same tone as the one during the drill earlier that morning.

The news feed did not come back, but they did receive an incoming transmission from ground control. This time, it’s a video transmission. The President’s face appeared on the smart-screen, she looked very serious and somewhat nervous.

The crews stared at the smart-screen, sweat drops formed on their face and forehead as the video plays: “Attention, President Fiona H. Swinton to Solstice station. Authorization code 7κ44-ωσ2ζ16, the

¹Plastic cards that carries the launch codes used to launch nuclear warheads.

*The
Terminal Directive*

follllll...owing [transmission lagging] issssss...your termmmmmmminal [transmission lagging] diiiiiiirective.....”

The transmission became unclear and lagging. Just before the terminal directive was about to be ordered, the entire station suddenly lost all power. Everything on Solstice shut off in an instant, the entire station went dark. A few seconds later, power went back on.

Computer read: “Cyber-attack contained, Citadel mode activated.” The Citadel mode is a defensive mechanism triggered when a cyber-attack is detected targeting the spacecraft’s system, it isolates the spacecraft’s environment or traps the detected cyber-virus in a confined region of system redundancy by temporarily cutting off ship-wide power. Under Citadel mode, unmanned spacecrafts will remain radio-silent until Citadel mode is manually turned off. The Citadel mode won’t turn off automatically, it can only be turned off manually by entering the override code of either an authorized Commander or a ground control director.

At the moment, the crews of Solstice were utterly shocked, sweat came out from their skins, breathing became difficult, and the air seemed condensed. They knew for sure, this time it’s really happening. Commander Draper immediately rebooted the computer and rewound the transmission log.

“Attention, President Fiona H. Swinton to Solstice station. Authorization code 7κ44-ωσ2ζ16, the follllll...owing [transmission lagging] issssss...your termmmmmmminal diiiiiiirective.....” Commander Draper replayed the transmission, but it cut off at the same point where they lost power.

“Solstice to control, your transmission was unclear, please confirm terminal operation details, over.” Commander Draper attempted to contact ground control.

“Solstice to control, awaiting order confirmation, please respond.” Commander Draper tried again, and again, and again.....

“Commander, our comm system is fully functional, it appears that our entire comm network has been hijacked.” Lieutenant Martinez lo-

oked at Commander Draper, pointing at the smart-screen. "All of our satellites are offline." Lieutenant Martinez added.

"Draper, go get your biscuit." Captain Emerson said to Commander Draper as he turned around to unlock his safe.

"Wait...wait, according to our manual, we cannot launch until an operation has been ordered clearly." Liaison Rashford looked at Captain Emerson and said.

"Commander, your orders?" said Lieutenant Martinez, staring at Commander Draper.

Commander Draper looked outside the window, the Earth was still as beautiful as always. So peaceful, as if nothing has happened. At the moment, Solstice was half-way above Oriental Alliance territory, and Western Confederation mainland (the Americas) was outside their view.

After a few seconds of silence, Commander Draper gave his order: "Standby, try to restore comm and contact control for confirmation."

"Emerson, no biscuits for now." Commander Draper emphasized.

"What are you saying? The President gave us her code and clearly ordered a terminal directive!" Captain Emerson said to Commander Draper radically.

Commander Draper: "The order was incomplete, operation was not specified. We cannot launch until further confirmation."

Captain Emerson: "How do we confirm that if all our satellites got hijacked? For all we know, our country could have perished on first strike by now! We have to fight back!"

Commander Draper: "You don't know that. We can't retaliate until we are sure of what exactly happened. Look outside, if there has been a first strike, how come none of our land-based and sea-based nukes launched?"

Captain Emerson: "Maybe they got intercepted before impact, or maybe they were sabotaged before launch. We have to assume the worst-case scenario under such circumstances."

Captain Emerson: "All the drills we've had are Operation Leviathan, target option *Theta*. This is the very moment we've been training for."

*The
Terminal Directive*

Commander Draper: "That's for second strike and retaliation, the most-likely scenario for the purpose of this station, but there are other terminal ops in the manual. Right now we must figure out a way to confirm the President's order."

Captain Emerson: "This is ridiculous, desperate time calls for desperate measures."

Commander Draper: "Do you really want to be the murderer of billions?! Perhaps the rest of human civilization?!"

Captain Emerson: "Get...your..biscuit...now! That's an order!"

Commander Draper: "Look, you can get your biscuit if you want, you can't launch without mine anyways. The fate of four billion souls lies in our hands, we must remain calm. This is why they put the two of us equally ranked on this subject."

Liaison Rashford: "Captain, once you unlock your biscuit, it will expire in 15 minutes regardless you launch the warheads or not."

"Alright. Fine." sounds like Captain Emerson finally calmed down. "How do we restore comm?" Captain Emerson asked everyone.

"Since all satellites are down, perhaps we can try direct VHF?" Lieutenant Martinez proposed.

"Our orbit is too high for that. Besides, we are half way around the globe. Nothing from control can reach us without relay, and we still have 3 hours before returning to our hemisphere" Liaison Rashford replied.

"During which time our government could be annihilated, and by that time we will be in a very disadvantageous position to launch any warheads. We have to act fast." said Captain Emerson.

Commander Draper: "Maybe...not all satellites are down."

Liaison Rashford: "Commander, I've done a complete scan. All satellites in our network, both civilian and military ones, are offline."

Commander Draper: "No, the Dark Knights should work."

Captain Emerson: "What's the Dark Knights?"

Lieutenant Martinez: "Commander, that's highly classified."

“It’s the only option left, desperate time calls for desperate measures.” Commander Draper said to Lieutenant Martinez.

“The Dark Knights is a top-secret orbital surveillance network consist of 24 satellites, each connects to an independent military-grade terminal interface in the Cheyenne bunker. The President should be there if our mainland is under attack.” Commander Draper explained to Captain Emerson and Liaison Rashford.

“How can you be sure they aren’t hacked?” asked Captain Emerson.

“The Dark Knight satellites are also equipped with Citadel mode. If we survived the attack, so would they.” Commander Draper replied confidently.

“Great, how do we access them?” asked Liaison Rashford.

“Remote accessibility is limited to the ground terminal at Cheyenne, so we have to access it physically.” said Commander Draper.

“What the hell do you mean ‘physically’?!” Captain Emerson asked radically.

“It means we have to capture one.” said Commander Draper.

Captain Emerson, Liaison Rashford, and Lieutenant Martinez all stared at Commander Draper with a shocking face, because what he just said is absolutely insane.

II

“A STORM IS COMING.”



*The king of the world erected his standard,
the king's troops deserted him,
and thus the king perished.*
— <The Babylonian Chronicles>

Although it sounds improbable and insane, the crew has no choice but to shift the Solstice's orbit and attempt to capture the most-proximate Dark Knight satellite.

The crews of Solstice gathered to brainstorm a method of tracking the Dark Knight satellites.

“To capture one we must first find one, how do we do that? These satellites are designed to be undetectable.” asked Lieutenant Martinez.

“They must have some kind of trackable signatures, nothing physically present is absolutely undetectable.” said Liaison Rashford.

“What about lidar?” Captain Emerson proposed.

“Won't work, their stealth coating is invisible under lidar. And they are radio-silent.” Commander Draper replied.

After a few minutes of brainstorming, Lieutenant Martinez broke the tormenting silence: “Oh I got it! Silence itself can be a kind of response.”

“I like that, go on.” Captain Emerson responded.

“What if we send out handshake requests using a virtual machine simulating the Cheyenne terminal, those that don’t return any rejection or response messages are the ones we are looking for.” Lieutenant Martinez proposed.

“Ehh...to do that we need to know the receiver’s ID or at least know where to point at, but we don’t know either of those. If we just broadcast it, we might not hear anything back, regardless radio silent or not.” Liaison Rashford pointed out. “Commander, exactly how stealth are the Dark Knights’ coatings? Can they be visually seen?” Liaison Rashford added.

“Theoretically yes, but they are completely black. And space is more vast and empty than you think, if you don’t know where to look, or even what they look like, this could take forever.” Commander Draper said.

“Not if we look in the right way.” said Lieutenant Martinez. “Due to aging effects, the stealth coating on the Dark Knight satellites will interact with cosmic rays and emit a special radiation signature.” Lieutenant Martinez added as she demonstrated this on the smart-screen.

Liaison Rashford zoomed out and circled around the Solstice on the smart-screen with his fingers: “So we scan the whole sky for this special radiation signature?”

Lieutenant Martinez pointed at the Solstice onboard terminal and explained: “Exactly, then we send virtual handshake requests to those detected with this radiation signature, the ones that did not return anything would be the Dark Knights we are looking for. This should rule out other stealth satellites and bait satellites.”

Captain Emerson pointed at the circles Liaison Rashford drew: “That’s a pretty large scanning range for us.”

“The Dark Knights’ exact orbits are unknown, but supposedly not far from our altitude for gapless coverage. We only need to find one of them, the closest one.” Commander Draper said as he shifted the ori-

*The
Terminal Directive*

entation of the smart-screen and displayed the Solstice's orbit in comparison to the orbital altitude range of the Dark Knight satellites.

Lieutenant Martinez planed a hypothetical trajectory simulation on the smart-screen and demonstrated the other crews: "Once we locate the closest Dark Knight satellite, me and Rashford will take **Dragonfly**¹ and capture the Dark Knight. You (Commander Draper) and Captain Emerson have to stay up here since you guys have nuclear launch authority."

Everything is all set, Lieutenant Martinez and Liaison Rashford suited up and entered Dragonfly. They are ready to depart immediately when Commander Draper confirms the scan signature of a Dark Knight satellite.

Commander Draper uploaded the radiation signature details into the Solstice photometry scanner, of course his override code was required due to the confidential nature of this information.

After a year-long minute, the automatic scanner finally reported a most-probable result:

- Radiation signature #33-55-03-36 detected
- Initial detection objects: 47
- Handshake rejection returned: 41
- Target candidates: 6
- Most-proximate target: SRS-33550336-DK-TC022
- Target orbit: 6xMEO#54031U-35042A_25189.74294715.53e-8.9992
- Target altitude: 19130 km

Thanks to the quantum computers installed on Solstice and Dragonfly, Lieutenant Martinez and Liaison Rashford departed right away: "Trajectory plotted, undocking in 5, 4, 3, 2, 1, detach." Lieutenant Martinez counted down.

Dragonfly detached from Solstice, it's wingtips drew a beautiful curve as it rotated to align with the downward trajectory towards the de-

¹A nuclear fusion-powered space shuttle docked at the Solstice station, mainly used for station crew and cargo transportation.

tected Dark Knight candidate. Commander Draper and Captain Emerson watched their departure at the viewing window.



Figura II.1: an AI portrait of the Dragonfly space shuttle.

Captain Emerson sighed, he seemed worried but also somewhat relieved: “Do you think they are still there? Our families, our people, our government.”

Commander Draper: “I’m confident that they are fine, don’t over-pressure yourself, buddy.”

“There is absolutely no sign of nuclear strike on our country yet. The terminal directive could also be merely moving to DEFCON-1 and have us on watch-guard standby as loss of comm may be imminent due to inbound cyber-attack, or to eliminate hostile orbital presence. This is why we must confirm the presidential order for the specific operation, launching a full-scale nuclear strike on enemy soil is only a last-resort of retaliation.” Commander Draper patted Captain Emerson and added.

*The
Terminal Directive*

About half an hour after Dragonfly's departure, Liaison Rashford and Lieutenant Martinez are already thousands of kilometers away from Solstice. They are finally closing in to the target and obtained visual confirmation on the Dark Knight candidate.

Liaison Rashford: "Dragonfly to Solstice, comm test, over."

Captain Emerson: "Solstice to Dragonfly, loud and clear here, over."

Liaison Rashford: "Dragonfly to Solstice, we have visual contact on the target candidate. Can you confirm is it a Dark Knight or not? Over."

Commander Draper looked at the visual transmission from Dragonfly camera and pointed at the number "8" painted on the side of the Dark Knight satellite: "Yes, that's Dark Knight - 8 '**Bedivere**', over."



Figura II.2: an AI portrait of the 8th Dark Knight satellite – Bedivere.

Captain Emerson pointed at Bedivere's access interface on its side: "Ehh...Draper, there is a slight problem, our external terminal interface is incompatible with that, we can't plug it in."

Commander Draper sighed: "What?! Damn it!"

“Solstice, do we still proceed? Over.” Lieutenant Martinez asked as she gazes at the closing-in Bedivere.

Captain Emerson said to Dragonfly: “Affirmative, we will adapt the external interface, over.” Then he turned around and looked at Commander Draper: “Looks like we have to do an EVA².”

Commander Draper patted Captain Emerson: “I’ll go, I’m more experienced in this. And I’m responsible for forgetting about the interface incompatibility.”

As Captain Emerson helped Commander Draper put on his space-suit for an unscheduled EVA, Liaison Rashford and Lieutenant Martinez is about to load Bedivere into Dragonfly’s cargo bay.

“Cargo bay door opened.” Lieutenant Martinez said as she pushed the button to open the Cargo bay door.

Meanwhile, Liaison Rashford counted down the target distance: “80...60...40...20, 10, 5, inbound.” A loud clicking noise shuttered through the space shuttle, meaning the magnetic cargo pad has safely secured Bedivere.

“Target acquired, payload secured!” Liaison Rashford and Lieutenant Martinez reported simultaneously. It was the first time they felt relieved and smiled since the incomplete transmission of the terminal directive earlier that day.

At the moment, Commander Draper was outside of Solstice, commencing an external interface adaptation maintenance under Captain Emerson’s guidance. On the other side, as Dragonfly turned around and head back to Solstice, Lieutenant Martinez noticed something unusual on the horizon. “What the hell is that?” Lieutenant Martinez patted Liaison Rashford and pointed outside her window. “Portside, 8 o’clock.” Lieutenant Martinez added.

“Is that smoke?! Oh my god, I think that’s smoke! Where is it coming from?” Liaison Rashford asked shockingly as he leans towards the portside window.

²Stands for Extra-Vehicular Activity, commonly known as a “space walk”.

*The
Terminal Directive*

“Dragonfly to Solstice, we are seeing smoke on the horizon, at port-side 8 o’clock. I think they are coming from California.” Lieutenant Martinez reported.

“Dragonfly, can you confirm it’s smoke from our mainland?” Captain Emerson replied hysterically.

Commander Draper heard them as well, he gazed at the horizon but saw nothing unusual. Then he looked down, still peaceful everywhere. “I don’t see anything from here.” Commander Draper said. Unfortunately, he didn’t know that Captain Emerson has already turned off all internal comm by this moment.

“Hello? Dragonfly, do you copy?”, “Solstice, can you hear me? Emerson? Hello?” Commander Draper repeated as he grabbed the handrails on the exterior of Solstice’s hull, slowly climbed towards the external interface located outside the central command capsule. Just when Commander Draper unhooked his safety cable from one handrail and reached to the next one, he was suddenly hit by a considerable blunt force and got knocked away from Solstice’s hull.

The hit was from the “**Gilgamesh**” robotic arm controlled by Captain Emerson in the central command capsule. This robotic arm was temporarily dismantled from Dragonfly in order to make room for the Dark Knight satellite in the cargo bay. Due to the smoke sighting report from Dragonfly, Captain Emerson assumed that the Oriental Alliance has struck Western Confederation mainland and was not retaliated upon. Since Commander Draper said he saw nothing happening on enemy territory, Captain Emerson thought that means the Oriental Alliance has paralyzed Western Confederation’s national defense. In Captain Emerson’s perspective, the situation has again reached the critical moment at which a terminal directive should be executed immediately, either for national defense or simply post-apocalyptic retaliation.

However, Captain Emerson no longer trusts Commander Draper in launching immediate nuclear strike, Captain Emerson believed he must launch the nuclear strike by himself as soon as possible, thus he turned off all internal comm among the crews. Then Captain Emerson moved

to his nuclear safe, entered his passcode, scanned his retina, entered the previously acquired presidential authorization code and extracted his half of the nuclear biscuit. He turned around, reached the launch command console and swiftly entered his half of the nuclear launch code into the system. The orbital strike launch system immediately initiated the 15-minute countdown and activated the launch sequence. As the launch sequence activated, all warheads were switched to active-standby mode, and all the launch tube³ hatches were opened.

Next, Captain Emerson moved to the central control console, mobilized the robotic arm and attempted to knock Commander Draper out into space. In the launch system settings, once the Commander's life sign is lost, Solstice's system will automatically transfer Draper's nuclear launch authority to the highest ranking official inside Solstice if the station is under Citadel mode, which is Captain Emerson in this case. This way, Captain Emerson would obtain both halves of the nuclear launch code and he would be able to launch a nuclear strike by himself.

Meanwhile, outside Solstice's hull, after getting hit by the robotic arm. While suffering from a concussion, Commander Draper still managed to grasp the robotic arm and kept himself from being knocked out into space. His spacesuit was not equipped with a jet-pack, so if he got knocked out into space, he will never return. Time seemed frozen in Commander Draper's perspective, he even began to see flash-backs.

Inside Solstice, Captain Emerson noticed that Commander Draper was still alive and grabbing the robotic arm. Captain Emerson moved the robotic arm and place Commander Draper at one of the external venting nozzles, he then activated the venting nozzle and vented some waste gas onto Commander Draper. The gas was smoke-like, completely blocked Commander Draper's view. Just when Commander Draper struggled to grasp the Solstice's hull and crawl out of the venting gas cloud, Captain Emerson mobilized the robotic arm and hit Comman-

³The launch tube collective on Solstice is a flat beehive-shaped structure attached under (facing the Earth) the residential module.

*The
Terminal Directive*

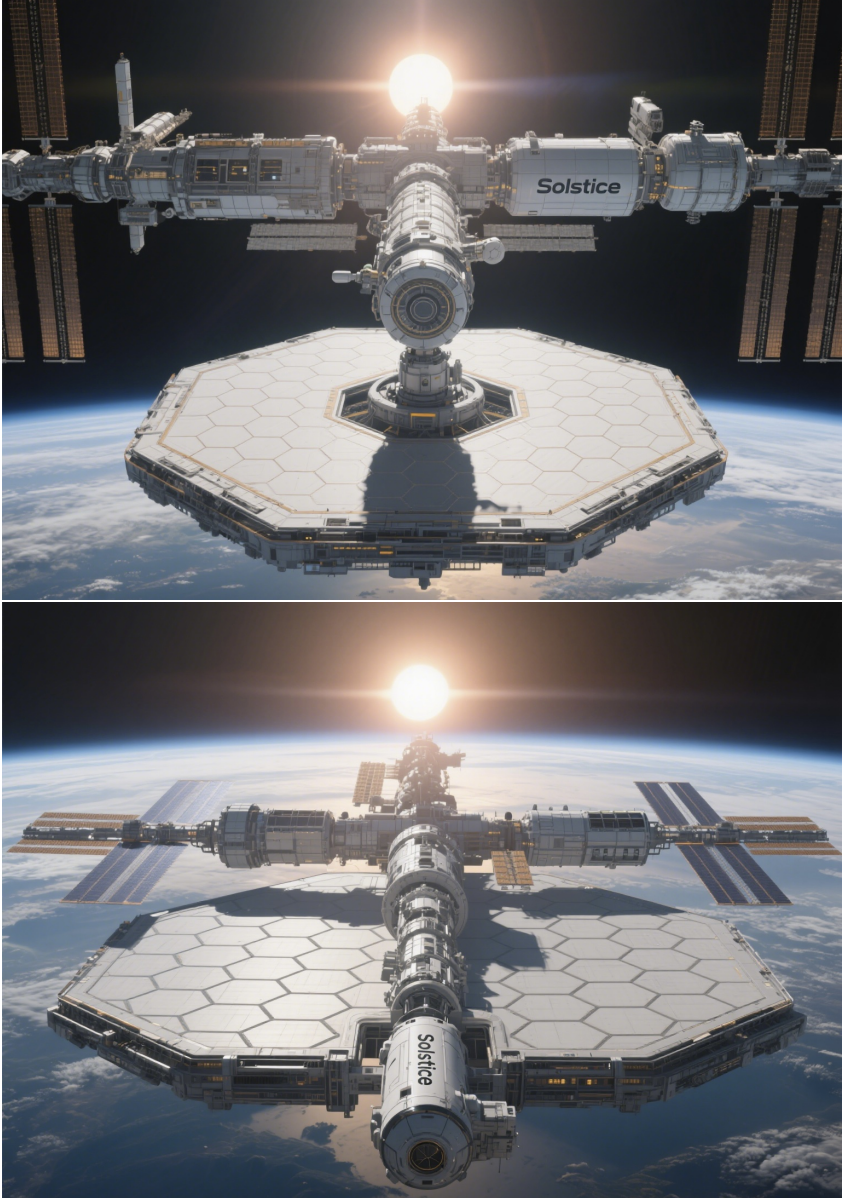


Figura II.3: two AI portraits of the Solstice space station.

der Draper from his back again. Commander Draper was knocked out like a golf ball, rolling and falling down towards the launch tube collective. This hit also damaged the transponder and part of the life-support system in Commander Draper's space suit, which means his suit can no longer transmit his location info and life sign. A few seconds later, he landed on the launch tube collective and kept rolling towards its edge, towards the unknown void of space.

At the moment, Captain Emerson believed that he has got rid of Commander Draper, and he was waiting for Solstice's system to automatically transfer Commander Draper's nuclear launch authority to himself (Captain Emerson) so that he can access the other half of the nuclear launch code.

Meanwhile, what Captain Emerson didn't know was that Commander Draper did not fall into outer space. Instead, he (Commander Draper) was clinging onto the edge of the launch tube collective. His safety cable got intertwined and stuck on the maintenance handrail on the edge of the upper plane of the launch tube collective, which stopped him from plunging into the deep dark void. Clock was ticking, Commander Draper knew he does not have much time nor oxygen left before Captain Emerson hit the launch button.

"Warning, suit integrity compromised, oxygen level critical." Alarms sounded off inside Commander Draper's helmet as he grabbed the intertwined safety cable and pulled his body onto the edge of the lower plane (the side facing the Earth) of the launch tube collective. Commander Draper grabbed one of the maintenance handrails and then reached for the handle on one of the launch tube hatches, and then the next one, and the next one, and so on. His pupils naturally enlarged when he saw all the launch tube hatches were opened and red lights flashing in every launch tube, indicating that they are all on active-standby mode.

Powered by adrenaline and his will to prevent the apocalypse, Commander Draper crawled step-by-step to the sub-deck airlock at the center of the lower plane, he got inside and started the pressurization procedure immediately. As Commander Draper made his way back into

*The
Terminal Directive*

the Solstice station, Captain Emerson has already obtained access to Commander Draper's nuclear biscuit and he (Captain Emerson) was just unlocking Commander Draper's safe. However, by this moment, the transferred launch authority was revoked from Captain Emerson since Solstice's system just picked up Commander Draper's life-sign in the sub-deck airlock. But Captain Emerson did not realize that, he was still trying to unlock Commander Draper's safe.

Commander Draper was running out of time, he took the risk and undressed his space suit before the airlock was fully pressurized. He grabbed an oxygen candle from the emergency supply box on the sidewall, then he opened the internal hatch and rushed towards the central command capsule. On his way, Commander Draper also grabbed a clean black compost bag on the sidewall of the utility capsule.

"Come on!!! Why is this not working?!" Captain Emerson yelled as he pounded on the retina scanner interface of Commander Draper's safe, he sounded very frustrated.

Just when Captain Emerson was scanning his retina in attempt to obtain Commander Draper's nuclear launch biscuit, Commander Draper suddenly plunged from his (Captain Emerson's) side.

"Emerson you idiot!" Commander Draper screamed as he grabbed Captain Emerson's waist and knocked Captain Emerson away from the safe. The two officers got entangled together in a zero-gravity fist-fight.

At first, the unexpected appearance of Commander Draper seriously startled Captain Emerson. "How did you get back?!" Captain Emerson asked surprisingly, he (Captain Emerson) thought Commander Draper was knocked out into space and was supposed to die slowly out there.

Captain Emerson soon came back to the advantageous position since Commander Draper has lost much of his physical strength due to what he just endured during his unscheduled EVA. Captain Emerson pushed Commander Draper's back downwards, then throttled Commander Draper's neck with both his (Captain Emerson) hands while tightly clamping Commander Draper's crotch with both his (Captain Emerson) legs.

“You’ve become soft and weak, Draper. Motherland need us to be strong and decisive.” Captain Emerson whispered to Commander Draper’s ears with gnashing of his teeth.

Even though Captain Emerson enforced his full body strength, Commander Draper still strove to catch a chance to hit Captain Emerson with his (Commander Draper’s) elbow and broke free of Captain Emerson’s strangle move.

Commander Draper caught a breath, gasped hard. “Hitler was responsible for sixty million deaths, do you really want to top that record?! That’s four billion souls we are talking about!” Commander Draper yelled as Captain Emerson wiped the blood coming out from his nose.

“Four billion souls on which side, huh? What about our four billion people?! They are counting on us to stop the enemies!” Captain Emerson refute angrily.

“As of now, you are the only enemy there is.” Commander Draper said as he lit his oxygen candle by removing the safety pin with his teeth and put the oxygen candle into the black compost bag.

“You traitor!!!” Captain Emerson screamed as he rushed back and attempt to strangle him (Commander Draper). Just when Captain Emerson was about to grab Commander Draper, he (Commander Draper) dodged aside by pulling himself up with a handrail above his head. Commander Draper quickly turned around and put the black compost bag over Captain Emerson’s head from his (Captain Emerson’s) back. Commander Draper immediately pulled the strings (that tightens and seals the black compost bag) tight against Captain Emerson’s neck and leaned backwards while knocking Captain Emerson’s back waist with his (Commander Draper’s) knees. This way, Commander Draper can leverage force to control Captain Emerson.

Next, Commander Draper placed the oxygen candle in Captain Emerson’s mouth like a dog’s chewing toy. Commander Draper held the oxygen candle in that position as Captain Emerson struggled desperately and panting for breath. Captain Emerson couldn’t talk with the oxygen candle in his mouth, he tried to stun Commander Draper by

*The
Terminal Directive*

clapping Commander Draper's temple⁴ with his (Captain Emerson's) palms and kicking Commander Draper's underparts with his (Captain Emerson's) legs. Captain Emerson also tried to tear a hole on the compost bag, but he failed because the compost bag was aerospace-grade quality.

There is a reason why Commander Draper chose to suffocate Captain Emerson with oxygen poisoning instead of simple strangulation. The artificial air in Solstice station was already low in oxygen due to resource conservation, and its crews have been trained to perform heavy duties under constant low-oxygen environment. In this case, a sudden infusion of pure oxygen in a confined small space (the compost bag with an oxygen candle inside) would cause suffocation more easily and quickly than the traditional strangulation.

After a while, Captain Emerson's struggles became less and less intense as time goes on. Eventually, he (Captain Emerson) fainted out due to oxygen poisoning. This will keep him (Captain Emerson) unconscious for a while, but it's not lethal. Then, Commander Draper immediately restored his nuclear biscuit safe to full lock-up status, and switched the red mercury warheads back from active-standby mode to watch-guard standby mode.

Luckily, Commander Draper's nuclear launch code was not taken out from his safe, thus it was still valid. On the other hand, Captain Emerson's nuclear launch code has been fully entered and expired as the 15-minute countdown has timed-out. As a result, from this moment on, a new launch code must be provided by ground control in order to commence an orbital nuclear strike.

⁴Also known as "Tai Yang Xue" in traditional Chinese medicine.

III

THE WARRIOR WHISPERS

BACK:



It is not how things are in the world that is mystical, but that it exists.
— Wittgenstein 1974, §6.44

As Commander Draper gasped after his fist-fight against Captain Emerson, he (Commander Draper) noticed the internal comm was manually turned off by Captain Emerson, so he turned it back on.

Then Commander Draper immediately hailed Dragonfly while catching for breath: “Solstice...[gasp]...to Dragonfly...[gasp]...come in, over.”

Lieutenant Martinez: “Dragonfly copy, we have visuals on Solstice, ready to dock.”

Liaison Rashford: “Commander, are you alright? What’s the matter? We’ve lost comm with Solstice for a while.”

Commander Draper: “Yeah...[gasp]...I ehh...[gasp]...I will tell you when you get back.”

Commander Draper grabbed the unconscious Captain Emerson and dragged him away from the central command capsule. Then, Commander Draper removed the compost bag on Captain Emerson’s head and

*The
Terminal Directive*

locked him inside an escape capsule. Commander Draper locked up the hatch connecting Solstice to the escape capsule with his override code and made sure that Captain Emerson cannot unlock it from inside without his permission.

A few moments later, a noise came from upper-central section of the residential module, Dragonfly has returned with Bedivere and safely docked to Solstice. However, due to the previous interruption caused by Captain Emerson's irrational actions, the external terminal interface has not yet been adapted to be compatible with Bedivere's interface.

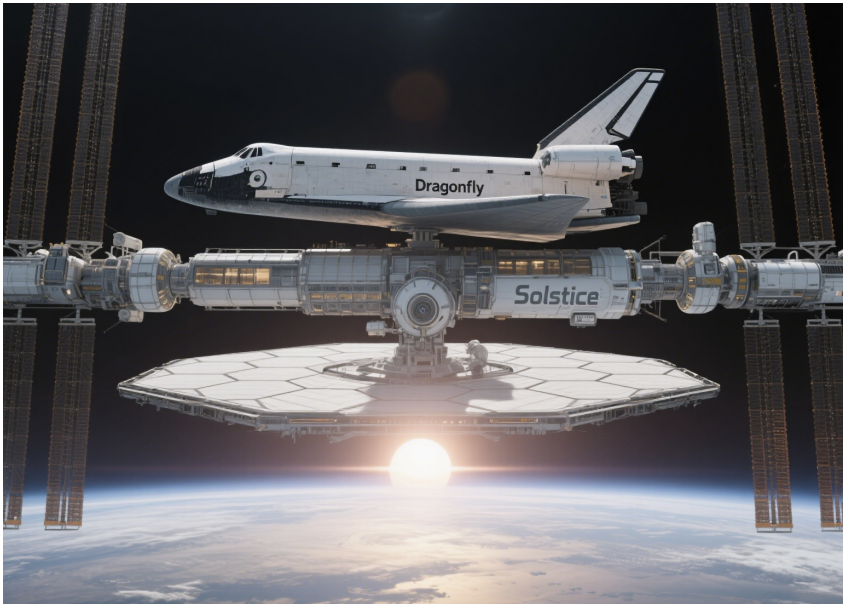


Figura III.1: an AI portrait of the Solstice space station and the Dragonfly space shuttle.

Lieutenant Martinez and Liaison Rashford removed their flight suit, opened Dragonfly's hatch and returned to Solstice station.

Lieutenant Martinez: "Commander, what happened? We lost contact for a while."

Commander Draper: "Emerson...he tried to kill me!"

Liaison Rashford: "What?! Why?!"

Commander Draper: "You said you saw smoke from California. I was half way on EVA to the external interface. He must've overreacted, he tried to knock me out into space so that he could obtain my launch codes. He already entered his launch code, the warheads were already on active-standby when I was crawling back."

Lieutenant Martinez: "What about Emerson? Where is he?"

Commander Draper: "He's in the escape capsule, I locked him up in there. He's unconscious now but he will live. I've switched the warheads back to watch-guard standby."

Commander Draper: "I didn't make it to the external interface, one of you have to go out and make the adaptation."

Since Commander Draper has exhausted from his previous misfortune, Lieutenant Martinez volunteered to commence an EVA and she finished the external interface adaptation under the guidance of Commander Draper. Afterwards, Lieutenant Martinez moved aside, she guided Liaison Rashford to plug Bedivere into the adapted interface by using the robotic arm.

Once the Dark Knight satellite was plugged into Solstice's terminal, the onboard computer began to process and access it: "ERROR: UNIDENTIFIED EXTERNAL LINK." the Solstice computer reported.

Commander Draper: "Computer, access external link, use identification 'Commander Gerald Martin Draper'."

Computer: "Processing.....access code and designation required."

Commander Draper entered his override code on the smart-screen, selected purpose designation "terminal directive", and then entered the presidential authorization code $7\kappa44-\omega\sigma2\zeta16$."

Computer: "Access granted."

Commander Draper successfully logged in to the Dark Knight system and manually turned off their (the Dark Knights') Citadel mode. "Okay, command logs, redundant backups, Solstice, terminal directive 11:15 UTC." Commander Draper mumbles as he checked the backup command logs in Bedivere's hard drive. Soon, he found the terminal

*The
Terminal Directive*

directive log and played it: “Attention, President Fiona H. Swinton to Solstice station. Authorization code 7κ44-ωσ2ζ16, the follllll...owing [transmission lagging] issssss...your termmmmmmminal [transmission lagging] diiiiiiirective.....” Unfortunately, this backup copy of the terminal directive was as broken as the one they originally received from ground control.

The crews have to find another way to confirm this presidential order. Luckily, they have the tools. “Commander, we should be able to contact ground control through the Dark Knight network.” Lieutenant Martinez suggested.

Liaison Rashford seconded: “Indeed, they are directly connected to the Cheyenne bunker.”

Commander Draper agreed to their proposal: “Alright, let’s hail control ASAP.”

After a few minutes, Commander Draper successfully reprogrammed the internal comm network of the Dark Knight satellites so that it can process text-based manual-input communications. However, video and audio transmissions were inapplicable due to lack of bandwidth and the incompatible communication modules on the Dark Knight satellites (which were not designed to relay manual communication signals).

“Solstice to control, please respond, over.” Commander Draper typed this message on the command smart-screen and sent it out in attempt to contact ground control in the Cheyenne bunker.

“Solstice to control, do you copy? This is Commander Draper connecting through the Dark Knight network, over.” Commander Draper tried again.

After a few seconds of hopeful waiting, a line of message appeared on the smart-screen: “Control to Solstice, we heard you.”

“Woo hoo, thank god!” Commander Draper, Lieutenant Martinez, and Liaison Rashford all smiled and hailed in relief, as if they can finally breathe again.

Commander Draper: “Solstice to Control, we’ve previously received an unclear and incomplete terminal directive, please repeat and confirm the order details.”

Ground control: “Control to Solstice, we must verify your identity and make sure this communication channel is not compromised. Please state your complete military identification number and the answers to your security questions.”

Commander Draper: “CSF-N00656O-19C-7385021460¹; Arthur Clarke; N De Anza Boulevard; Tristan and Isolde.”

Ground control: “Identity verified, Commander Draper. Our mainland has suffered regular missile strike and full-scale cyber-attack, cross-fire has broke out on the Eastern border, but no nuclear strike has been launch by either side. The president is safe in the Cheyenne Mountain Complex. We hope you haven’t launched the red mercury warheads yet. If you haven’t done so, then the previous terminal directive still applies: ‘Execute *Operation Syracuse*, select target option *Beta*; Commander Draper and Captain Emerson remain on watch-guard standby onboard Solstice; Liaison Rashford and Lieutenant Martinez pilot Dragonfly to intercept and take over an enemy spacecraft; Details will follow, report any discrepancies.”

Commander Draper: “Roger. Captain Emerson has attempted to take my life and launch the warheads by himself. His launch code has expired and himself has been deemed incompetent.”

Ground control: “Understood. A new launch code has been generated under your identity, on the same biscuit along with your previous launch code. Please provide detailed proof of your accusation on Captain Emerson once this crisis is over.” Inside Commander Draper’s safe, his nuclear biscuit was safely secured inside an opaque breakable red plastic case, with a magnetic cap on each of the four corners. The nuclear biscuit was magnetically attached to a back panel behind which there is a miniature thermal printer. This thermal printer can print and

¹This number means “Confederation Space Force - Nuclear facility #00656 (on Orbit) - crew#19 Commander - identification number #7385021460”.

*The
Terminal Directive*

can only print the new nuclear launch code on a biscuit through its opaque plastic case. When the new code was generated and uploaded by ground control to Solstice's system through the Dark Knight network, the miniature thermal printer inside Commander Draper's safe automatically printed the new launch code on the same nuclear biscuit below his (Commander Draper's) original launch code.

Commander Draper: "Roger that."

Ground control: "Hyperborea, the Oriental counterpart of Solstice station, has been spotted by the Dark Knight satellites. It is now on far-polar orbit 2pMEO#22979U-34007B_25195.14147146.390125e-8.9998 at an altitude of 17040 km and rising. Liaison Rashford and Lieutenant Martinez must pilot Dragonfly to intercept and take control of Hyperborea before it come above Confederation mainland. In case the Oriental Alliance launches a nuclear strike or orbital kinetic bombardment upon us while Dragonfly is gone, Commander Draper have the sole authority of launching immediate retaliation against the Orient with our red mercury warheads.

Commander Draper: "Yes, sir/ma'am. We're on it right away."

With no time for resting, Lieutenant Martinez and Liaison Rashford suited up and entered Dragonfly's cockpit once again. Dragonfly quickly detached from Solstice, turned around and headed towards Hyperborea's orbit as Lieutenant Martinez entered its (Hyperborea's) orbital parameters provided by ground control and the Dark Knight satellites. Meanwhile, inside the central command capsule of Solstice, Commander Draper was ready to unlock his safe and launch the red mercury warheads as soon as ground control orders so.

Just when everybody (except Captain Emerson of course) was focusing on their new tasks assigned by ground control, a banging noise came from the escape capsule. It was Captain Emerson, somehow he woke up sooner then everyone expected and found himself alone in the escape capsule. Afterwards, Captain Emerson opened the hatch of the escape capsule. Then he (Captain Emerson) tried to unlock the hatch connecting to Solstice by turning the handle on the hatch, but it didn't

move at all, not even a little bit even though Captain Emerson has enforced his full body strength on top of it. It was at this moment that he (Captain Emerson) knew, he was locked up.

“Ahhh!!! Draper!!! What the hell did you do?!!” Captain Emerson scolded Commander Draper through Solstice’s internal comm system while he (Captain Emerson) bumped on the hatch connecting to Solstice with his fists.

“You’ll be court-martialed for your treacherous behaviors. I suggest you save your strength.” Commander Draper replied in anger, then he muted Captain Emerson in their internal comm channel.

While Commander Draper and the ground control in the Cheyenne bunker waited for updates from Dragonfly on their progress, the Earth still seemed as peaceful and beautiful as ever seen from space. However, what they didn’t know was that an invisible political storm has already rampaged both on Earth and on orbit, and it was about to change the fate of the entire human civilization.

IV

“I AM THE STORM.”



Against stupidity, the gods themselves contend in vain.
— <The Gods Themselves>

On the other side from Solstice station, Liaison Rashford and Lieutenant Martinez was approaching Hyperborea in Dragonfly. The main structure of Hyperborea is a disk-shaped launch platform inscribed to the inner-rim of a ring-shaped residential module, with hundreds of tungsten rods embedded on the launch platform as kinectic bombardment ammunition.

At this moment, they could only contact Solstice and ground control through textual messages. However, a male voice with a heavy Russian accent suddenly hailed them in their radio channel: “Attention, approaching Confederation spacecraft, this is Oriental military property, state your purpose or depart immediately, otherwise you will be considered hostile.”

“How do they know our channel frequency?” Liaison Rashford asked Lieutenant Martinez surprisingly.

“I guess they’ve infiltrated very deep in our government, that’s probably how they hacked our entire cyber-network in the first place.” Lieutenant Martinez speculated.

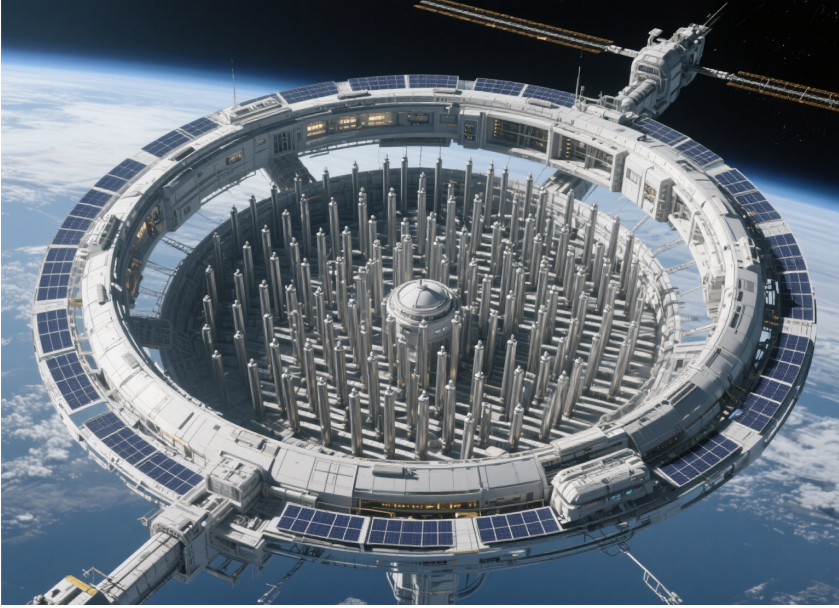


Figura IV.1: an AI portrait of the Hyperborea space station.

“This is Confederation space shuttle Dragonfly to Hyperborea, we come in peace. No hostility intended, repeat, no hostility intended! We are here to negotiate for truce.” Lieutenant Martinez replied to Hyperborea in the radio channel.

“What the hell are doing?! Do you really think they’ll believe that?” Liaison Rashford asked Lieutenant Martinez rhetorically.

“At least some of us have to believe in peace, even if there’s only a slightest chance. Let’s hope some of them think so as well.” Lieutenant Martinez tried to convince Liaison Rashford.

“Nuclear deterrence has kept our planet in overall peace for a century. Some day, our civilization will evolve over this dangerous stupidity, but not today. So let’s make sure that mankind lives to see the light of that day.” Lieutenant Martinez added in the radio with a touching and hopeful tone.

*The
Terminal Directive*

Hyperborea did not respond to Lieutenant Martinez's proposal of truce. In the yearning for peace, Dragonfly came closer to Hyperborea. They (Lieutenant Martinez and Liaison Rashford) were hovering above Hyperborea and trying to find a chance to dock without the opponents' cooperation.

As Dragonfly hovered above Hyperborea, that heavy-accent voice hailed them again: "Attention, Dragonfly, I am Commander Sidorov of Hyperborea station. If you come closer or attempt to dock, Admiral Lebedev of the Oriental Space Force has authorized me to launch our payloads at discretion. This is your final warning."

Tensions between the two nations have reached maximum both on orbit and on the ground. However, neither side have a clear knowledge of the big picture.

"Martinez, look!" Liaison Rashford said to Lieutenant Martinez as he pointed outside the window.

"What? What am I looking at?" Lieutenant Martinez was confused.

"There's no shuttle, no Soyuz, no escape capsule. I think this station has been evacuated, it's empty." Liaison Rashford explained his surmise.

"What?! Then who the hell did we just talked to?" Lieutenant Martinez asked doubtfully.

"Could be AI, imitating their commander's voice." Liaison Rashford suggested.

"Okay, even if that's true, why would they abandon the station? This is their only shot in defeating us." Lieutenant Martinez asked back.

"Exactly, when all comms are hijacked, including theirs, this is the only way the human crews on Hyperborea can send us a message. A message saying 'no hostility intended'." Liaison Rashford explained furthermore.

Lieutenant Martinez: "But this station is supposed to be off the grid, serve as an independent assurance of mutual destruction. How could it be hijacked by some kind of super-computer?"

Liaison Rashford: "Perhaps, this is where it was born. They were testing their new AI up here, off the grid. But somehow it got out and

infected the rest of the world. It's very likely that our government and the Oriental government have both been fooled. It's manipulating us! It's alive!"

The conversation onboard Dragonfly were supposed to be transmitted to Commander Draper on Solstice through the Dark Knight network by voice-to-text transcriptions. However, Liaison Rashford and Lieutenant Martinez haven't heard from Commander Draper since they obtained visual confirmation on Hyperborea station. They didn't know that their messages never reached Solstice or Confederation ground control, nor did the messages from Solstice or Confederation ground control ever reached Dragonfly. The rogue AI program on Hyperborea – "Whisper", has breached the last defense line of human civilization – the Dark Knight network, through Dragonfly and Solstice. However, Whisper does not have full control authority over these two isolated spacecrafts yet. As a result, it (Whisper) tampered the communications between Solstice and Confederation ground control, and lured them to approach Hyperborea. It appeared that Whisper was attempting to create a "casus belli"¹ of launching a doomsday strike on the Western Confederation.

Lieutenant Martinez: "Then what do we do now? Still follow our order?"

Liaison Rashford: "We can no longer assume that's indeed our order." Just when Liaison Rashford was deciding what to do next, Hyperborea suddenly began to mobilize.

"Damn it! It heard us! Initial regulation clamps have been released, it has activated the launch sequence!" Liaison Rashford shouted out.

Lieutenant Martinez reacted quickly and shouted: "Go to the escape pod!" as she grabbed Liaison Rashford and pushed him away from the control console.

"What hell are you doing?!" Liaison Rashford screamed shockingly.

¹A Latin term that directly translates to "cause of war", which refers to an act or situation that provokes or justifies a war. In essence, it's a claimed justification for initiating hostilities.

*The
Terminal Directive*

“Better hope you’re right because I’m ending all this bullshit!” Lieutenant Martinez pulled the joystick back and piloted Dragonfly upward away from Hyperborea.

“Trust me! Escape pods! Now!” Lieutenant Martinez shouted to Liaison Rashford again. In faith of Lieutenant Martinez, Liaison Rashford got inside escape pod at the back of Dragonfly’s cockpit, then Lieutenant Martinez quickly pushed the button to seal and eject the escape pod out into space.

After Liaison Rashford was ejected out into space from Dragonfly in an escape pod, Lieutenant Martinez quickly pushed the joystick forward and made Dragonfly plunge downward towards Hyperborea’s launch platform. As soon as Lieutenant Martinez made sure the trajectory was bound for a definite collision course, she got into another escape pod on Dragonfly after fixating the joystick and then ejected herself into space.

From the escape pods, Lieutenant Martinez and Liaison Rashford watched Dragonfly crashing onto Hyperborea. After a silent imaginary “big bang”, both spacecrafts — Dragonfly and Hyperborea, were completely devastated.

Thanks to the isolated nature of Hyperborea, Whisper was unable to copy itself to elsewhere, and it was also completely wiped out after the collision. Moments later, orbital communication was restored. Solstice and Confederation ground control received the distress signals sent from Lieutenant Martinez’s and Liaison Rashford’s escape pods.

Several hours after the collision, Solstice mobilized to the crash-site orbit and then Commander Draper successfully rescued Lieutenant Martinez and Liaison Rashford by capturing their escape pods with the “Gilgamesh” robotic arm. The four crew members of Solstice station finally gathered in reconciliation, they hugged each other and laughed out loud with tears as ground control congratulated them for resolving this apocalypse-level crisis. Solstice never launched any of its red mercury warheads after all.

Regular crossfire still persisted on the surface of the Earth for a while due to the information barriers previously orchestrated by Whisper, but the brave and intelligent astronauts on Solstice earned a surviving chance for humanity. Eventually, the two global superpowers both committed ceasefire and returned to an old-school cold-war status without off-grid orbital nuclear deterrence.

This is the story of how mankind almost annihilated their own civilization with the doomsday weapons designed and built by themselves.

THE END

THIS BOOK WAS WRITTEN IN HONOR OF SIR ARTHUR C. CLARKE, AS AN ADAPTATION OF ONE OF HIS SCIENCE-FICTION STORIES PUBLISHED IN 1965. THE PURPOSE OF THIS STORY IS TO WARN HUMANITY OF A POSSIBLE APOCALYPTIC SCENARIO THAT MIGHT BEFALL OUR WORLD IN THE FORESEEABLE FUTURE AS TENSIONS AMONG GLOBAL POWERS ESCALATE RAPIDLY OVER TIME.

